IN THE CLAIMS

1. (Original) A method of imparting corrosion resistance to a score line of an easily openable metal can end comprising the steps of:

(a) providing a metal can end having a score line;

(b) applying a layer of a radiation-curable coating composition to the score line to provide a coated metal can end, said radiation-curable coating composition comprising:

(i) a difunctional compound,

(ii) a polyfunctional reactive diluent,

(iii) a cationic photoinitiator, and

(iv) up to about 12%, by weight, of a monofunctional reactive diluent; and

(c) exposing the coated metal can end to a sufficient dose of radiation to cure the radiation-curable coating composition and form a cured coating composition on the score line.

2. (Original) The method of claim 1 further comprising the step of:

(d) heating the coated metal can end resulting from step (c) for about one to about five minutes at about 65°C to about 205°C for about one to about five minutes.

3. (Original) The method of claim 1 wherein the metal can end is manufactured from a metal selected from the group consisting of aluminum, tin-free steel, tinplate, steel, zinc-plated steel, zinc alloy-plated steel, lead-plated steel, lead alloy-plated steel, aluminum-plated steel, aluminum alloy-plated steel, and stainless steel.

4. (Original) The method of claim 1 wherein the radiation-curable coating composition further comprises up to about 30% of a solvent selected from the group consisting of water, an organic solvent, or a mixture thereof.

5. (Original) The method of claim 1 wherein the radiation-curable coating composition comprises about 60% to about 85%, by weight, of the difunctional compound.

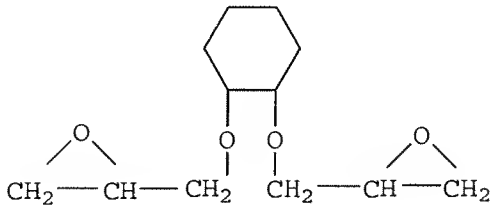
6. (Original) The method of claim 1 wherein the radiation-curable coating composition comprises about 10% to about 20%, by weight, of the polyfunctional reactive diluent.

7. (Original) The method of claim 1 wherein the radiation-curable coating composition comprises about 2% to about 8%, by weight, of the photoinitiator.

8. (Original) The method of claim 1 wherein the difunctional compound is selected from the group consisting of a diepoxy compound, a vinyl epoxy compound, a divinyl compound, or a mixture thereof.

9. (Original) The method of claim 8 wherein the diepoxy compound comprises a cycloaliphatic diepoxy compound.

10. (Original) The method of claim 9 wherein the cycloaliphatic diepoxy compound is selected from the group consisting of 3,4-epoxycyclohexylmethyl-3,4-epoxycyclohexane carboxylate, bis(3,4-epoxycyclohexyl)methyl adipate, 2-(3,4-epoxycyclohexyl-5.5-spiro-3,4-epoxy)cyclohexane-metal-dioxane, 1,6-hexanediol diglycidyl ether, dipropylene glycol diglycidyl ether, diglycidyl ether of polypropylene glycol, ethylene glycol diglycidyl ether, a diglycidyl ether of phthalic acid, a diglycidyl ether of hexahydrophthalic acid, propylene glycol dioleate epoxide, limonene dioxide, a cresol-novolac diepoxy compound,



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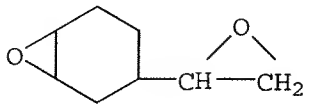

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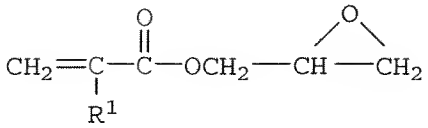
and mixtures thercof.

11. (Original) The method of claim 8 wherein the vinyl epoxy compound has a structure



wherein R^1 is hydrogen or methyl.

12. (Original) The method of claim 8 wherein the vinyl epoxy compound is selected from the group consisting of glycidyl methacrylate, glycidyl acrylate, mono- and diglycidyl itaconate, mono- and diglycidyl maleate, mono- and diglycidyl fumarate, that allyl glycidyl ether, vinyl glycidyl ether, and mixtures thereof.

13. (Original) The method of claim 8 wherein the divinyl compound is selected from the group consisting of divinyl ether, diethylene glycol divinyl ether, 1,4-butanediol divinyl ether, triethylene glycol divinyl ether, and 1,4-cyclohexanedimethanol divinyl ether.

14. (Original) The method of claim 1 wherein the polyfunctional reactive diluent is selected from the group consisting of an ε-caprolactone triol, glycerol, a polyether polyol, a polyester polyol, 1,2,6-hexanetriol, pentaerythritol, and mixtures thereof.

15. (Original) The method of claim 1 wherein the polyfunctional reactive diluent comprises a hydroxy-terminated polyester.

16. (Original) The method of claim 1 wherein the photoinitiator comprises a sulfonium salt, an iodonium salt, a thermally-blocked acid catalyst, or a mixture thereof.

17. (Original) The method of claim 1 wherein the photoinitiator comprises (thiodi-4,1-phenylene) bis(diphenyl-sulfonium) hexafluoroantimonate, diphenyl(4-phenylthiophenyl) sulfonium hexafluoroantimonate, triarylsulfonium hexafluoroantimonate salts, mixed triarylsulfonium hexafluorophosphate salts, bis(4-(diphenylsulfonio)phenyl) sulfide bis(hexafluorophosphate), diphenyl phenylthiophenyl sulfonium hexafluorophosphate, para-toluenesulfonic acid, dinonylnaphthelene disulfonic acid, dinonylnaphthalene monosulfonic acid, dodecylbenzene sulfonic acid, and mixtures thereof.

18. (Original) The method of claim 1 wherein the monofunctional reactive diluent comprises an alcohol, a glycol ether, an epoxy compound, or a mixture thereof.

19. (Original) The method of claim 18 wherein the epoxy compound comprises an epoxidized C_{10} to C_{30} alpha olefin, 1,2-epoxyhexadecane, 1,2-epoxydecane, 1,2-epoxytetradecane, alpha pinene oxide, limonene monoxide, epoxidized polybutane, a cycloaliphatic monoepoxide, and mixtures thereof.

20. (Original) The method of claim 19 wherein the alcohol or glycol ether comprises butanol, n-propanol, hexanol, octanol, diacetone alcohol, ethylene glycol monomethyl ether, ethylene glycol monoethyl ether, ethylene glycol monobutyl ether, propylene glycol monomethyl ether, and mixtures thereof.

21. (Original) The method of claim 1 wherein the ultraviolet-curable coating composition further comprises at least one of:

up to about 0.5%, by weight, of a silicone surfactant;
up to about 0.05%, by weight, of an optical brightener; and
up to about 2%, by weight, of a slip- and mar-resistance additive.

22. (Original) The method of claim 4 wherein the solvent is selected from the group consisting of acetone, cyclohexanone, methyl ethyl ketone, ethyl aryl ketones, methyl aryl ketones, methyl isoamyl ketone, toluene, benzene, xylene, mineral spirits, kerosene, high flash VM&P naphtha, tetrahydrofuran, a chlorinated solvent, propylene glycol monomethyl ether acetate, and mixtures thereof.

23. (Original) The method of claim 4 wherein the solvent comprises water.

24. (Original) The method of claim 1 wherein the radiation-curable coating composition applied in step (b) has a viscosity of about 10 to about 35 seconds (#4 Ford Cup).

25. (Original) The method of claim 1 wherein the coated metal can end in step (b) is subjected to radiation in an amount of about 50 to about 300 millijoules of per square centimeter of the coated metal can end.

26. (Original) The method of claim 1 wherein the photoinitiator comprises a cationic photoinitiator and the radiation is ultraviolet or e-beam radiation.

27. (Original) The method of claim 1 wherein the photoinitiator comprises a thermally-blocked acid catalyst and the radiation is infrared radiation.

28. (Withdrawn) An easily openable can end prepared by the method of claim 1.

29. (Withdrawn) An easily openable can end having a score line coated with a radiation cured coating of claim 1.

30. (Withdrawn) A metal container having an easily openable can end prepared by the method of claim 1.

31. (New) The method of claim 1 wherein said radiation-curable coating composition comprises:

(i) about 60% to about 85%, by weight, of a diepoxy compound,

(ii) about 10% to about 20%, by weight, of a polyfunctional reactive diluent,

(iii) about 2% to about 8%, by weight, of a cationic photoinitiator, and

(iv) up to about 12%, by weight, of a monofunctional reactive diluent.